

REMARKS

Reconsideration of the above-identified patent application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-40 are in this case. Claims 17-40 have been rejected under § 112, first paragraph. Claims 6, 7 and 17-30 have been rejected under § 112, second paragraph. Claims 21-24, 27-30 and 35-40 have been rejected under § 101. Claims 1-17, 19, 20 and 31-34 have been rejected under § 102(e). Claims 21, 27, 35 and 38 have been objected to. Independent claim 17 and dependent claims 20, 21, 27, 35 and 38 have been amended. New dependent claims 41 and 42 have been added.

The claims before the Examiner are directed toward methods, devices and systems for wireless communication.

A wireless communication device includes a transceiver for communicating with other devices, a contact list memory for storing a contact list, a mechanism for defining a neighborhood of the device and a contact name indication mechanism for indicating the name of a contact whose other wireless device is located in the neighborhood. The neighborhood is defined at the device, for example by the device itself or by a user of the device. The user defines a list of contacts and receives a collective indication of which contacts are located within the neighborhood. A plurality of device users define respective user profiles including user attributes. One of the users defines a target attribute, and receives an indication of which other users that have that attribute have devices in the first user's neighborhood. The devices communicate among themselves either indirectly or directly.

§ 112, First Paragraph Rejections

The Examiner has rejected claims 17-40 under § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner contends that the following subject matter is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention:

Claim 17 element (c): the mechanism for defining a neighborhood of the wireless communication device.

Claim 17 element (d): the mechanism for indicating which of the at least one contact name is associated with a respective other wireless device located within the neighborhood.

Claims 18 and 32: the mechanism for setting up a piconet.

Claims 20 and 34: the mechanism for indicating a geographical location of another wireless device.

Claim 31: the mechanism for defining a target attribute.

The Examiner's rejection is respectfully traversed.

With regard to claim 17(c), this mechanism is exemplified in the specification *inter alia* by keypad 24 of Figure 1, the use of which to define a neighborhood of cell phone 10 is described in the specification on page 14 lines 17-18:

JOHN defines a neighborhood of his cell phone 10 by entering the radius (*e.g.*, 200 meters) of the neighborhood using keypad 24.

With regard to claim 17(d), this mechanism is exemplified in the specification by display screen 26 of Figure 1, the use of which to indicate which contact name is associated with a respective other wireless device in the neighborhood of cell phone

10 is described in the specification, *inter alia* on page 14 line 22 through page 15 line 1:

To find out which contacts to whom JOHN has assigned the attribute “Mason” are within the defined neighborhood with their cell phones 10 turned on, JOHN enters the target attribute “Mason” using keypad 24. The resulting display on display screen 26 is illustrated in Figure 6. (emphasis added)

and on page 18 lines 19-21:

JOHN has the option of showing collectively and simultaneously, in the display of contact list 20, all contacts whose cell phones 10 are turned on, or all contacts within the defined neighborhood whose cell phones are turned on. (emphasis added)

With regard to claims 18 and 32, this mechanism is exemplified in the specification by transceiver 14 of Figure 1, the use of which to set up a piconet is described in the specification on page 19 lines 4-20 as now amended:

In an alternative embodiment of the present invention, transceivers 14 of cell phones 10 also are configured to communicate directly with each other using a short range wireless protocol such as the BLUETOOTH™ protocol. Such a transceiver 14 periodically transmits a signal inviting any other such transceiver 14 that receives the broadcast to respond by transmitting an acknowledgement signal identifying itself. For example, according to the device discovery procedure of the BLUETOOTH™ standard, the first transceiver 14 periodically enters an “Inquiry” state in which the first transceiver 14 seeks other BLUETOOTH™ transceivers 14 that are within wireless communication range by broadcasting ID packets; and other BLUETOOTH™ transceivers 14 that are in range and that are in an “Inquiry Scan” state identify themselves to the first BLUETOOTH™ transceiver 14. When the first transceiver 14 receives an acknowledgement signal whose signal strength exceeds a predefined minimum signal strength, the first transceiver 14 sets up a piconet with the acknowledging transceiver 14 that supports direct wireless communication between the two transceivers 14, with the first transceiver 14 functioning as the piconet master and the other transceiver 14 functioning as the piconet slave. (emphasis added)

With regard to claims 20 and 34, this mechanism is exemplified in the specification by display screen 26, the use of which to indicate the geographical

location of another wireless device is described in the specification on page 18 lines 8-13:

Alternatively, JOHN can invoke a display of the geographical location of TOM or SID on display screen 26, either as geographical coordinates in a standard coordinate system or relative to JOHN's own location. Figure 8 shows an example of one such display, in terms of the range and bearing to SID relative to JOHN. Note that "range" and "bearing" are geographical coordinates in a coordinate system whose origin is at JOHN's location. (emphasis added)

With regard to claim 31, the mechanism for defining a target attribute is exemplified inherently in the specification by keypad 24. Keypad 24 is defined on page 12 line 16 as the "conventional data entry device" of device 10. Just as keypad 24 is used to enter an attribute to be sought within the defined neighborhood, as described in the above citation from page 14 line 22 through page 15 line 1 of the specification:

To find out which contacts to whom JOHN has assigned the attribute "Mason" are within the defined neighborhood with their cell phones 10 turned on, JOHN enters the target attribute "Mason" using keypad 24. The resulting display on display screen 26 is illustrated in Figure 6. (emphasis added)

so keypad 24 is used to create contact list 20 of Figure 2. In creating contact list 20, the user uses keypad 24 to enter the respective attributes of the contacts.

The Examiner has rejected claims 18 and 32 under § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner's rejection is respectfully traversed. The above citation from page 19 lines 6-20 of the specification as now amended is a fully enabling description of how a transceiver 14 is used to set up a piconet.

§ 112, Second Paragraph Rejections

The Examiner has rejected claims 6, 7 and 17-30 under § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Examiner has pointed out that it is not clear whether the “mechanism for indicating” that is recited in claims 17 and 20 is the same mechanism or two different mechanisms. Applicant believes that it is clear that the two “mechanisms for indicating” are, functionally, two different mechanisms. The “mechanism for indicating” that is recited in claim 17 indicates which contact name(s) is/are associated with other wireless devices in the neighborhood. The “mechanism for indicating” that is recited in claim 20 indicates the geographical location of one of those other wireless devices. Nevertheless, in order to expedite the prosecution, Applicant has amended claim 17 to recite a “contact name indication mechanism” and claim 20 to recite a “geographical location indication mechanism”, in order to more clearly distinguish these two mechanisms.

Applicant notes in passing that even though these two mechanisms are functionally distinct, they may be embodied in the same physical component of the wireless communication device. Indeed, in the preferred embodiment described in the specification, both mechanisms are embodied in display screen 26.

The Examiner also contends that the terms “direct communication” in claim 6 and “indirect communication” in claim 7 are unclear. The Examiner’s rejection is respectfully traversed. Direct and indirect communication are defined by example in the specification on page 19 lines 3-7 as now amended:

In the example of Figure 4, transceivers 14 of cell phones 10 are configured to communicate with each other only indirectly, via base stations 50. In an alternative embodiment of the present invention, transceivers 14 of cell phones 10 also are configured to

communicate directly with each other using a short range wireless protocol such as the BLUETOOTH™ protocol.

Nevertheless, in order to expedite the prosecution, Applicant has added new claims 41 and 42 that recite more explicitly what is meant by “direct” and “indirect” communication. New claim 41 recites direct communication by reciting the additional step of establishing a piconet for supporting the communicating step of claim 5. Support for new claim 41 is found in the specification in the above citation from page 19 lines 4-20 as now amended. New claim 42 recites indirect communication as communication via a device separate from the two wireless devices. Support for new claim 42 is found in the specification in the above citation from page 19 lines 3-7 as now amended, in which the separate device is base station 50.

§ 101 Rejections

The Examiner has rejected claims 21-24, 27-30 and 35-40 under § 101 as being directed to non-statutory subject matter, *i.e.*, multiple inventions. (The Examiner wrote “38-40”, but in light of the objection to claims 21, 27, 35 and 38 as being of improper dependent form, Applicant assumes that the Examiner intended to reject claims 35-37 too under § 101.) The Examiner’s rejection is respectfully traversed.

Claims 21, 27, 35 and 38 now have been rewritten in independent form. As such, each of claims 21, 27, 35 and 38 now is directed at a single invention. Applicant believes that these amendments resolve the rejection under § 101 of claims 21-24, 27-30 and 35-40.

§ 102(e) Rejections – Adamczyk et al. ‘140

The Examiner has rejected claims 1-17, 19, 20 and 31-34 under § 102(e) as being anticipated by Adamczyk et al., US Patent No. 7,046,140 (henceforth, “ADAMCZYK ET AL. ‘140”). The Examiner’s rejection is respectfully traversed.

ADAMCZYK ET AL. ‘140 teaches an alert system **300** for alerting selected individuals in the vicinity of a subscriber **170** that subscriber **170** is in trouble. Subscriber **170** uses a wireless mobile communication device (MCD) **200** to send an alert signal to an alert service **305**. Alert service **305** determines which individuals **162** in a contact list are in the vicinity of subscriber **170** and informs those individuals that subscriber **170** needs help. The “vicinity” of subscriber **170** is “a predefined geographic radius to subscriber **170**” (column 4 line46; emphasis added). As best understood, this radius is defined when subscriber **170** registers with alert service **305** (Figure 3 step **405**) using Internet **250** and computer **310**.

By contrast, according to the present invention as recited in independent claims 1 and 11, the neighborhood of the first/respective wireless device is defined *at* the first/respective wireless device. In other words, the first/respective wireless device participates in the definition of its neighborhood, for example by the user of the first/respective wireless device using keypad 24 to enter a neighborhood radius (specification page 14 lines 17-18; claims 3 and 13) or according to a minimum strength of signals received by the first/respective wireless device (specification page 19 lines 9-20, claims 4 and 14). According to independent claims 17 and 31, the wireless device itself includes the mechanism for defining its neighborhood. Furthermore, independent claims 17 and 31 recite the following elements that are lacking in MCD **200** of ADAMCZYK ET AL. ‘140:

- a contact list memory for storing a contact list. ADAMCZYK ET AL. '140 store their contact list in a database 315 at alert service 305.

- a mechanism for defining a target attribute. In ADAMCZYK ET AL. '140, there is only one target attribute is "notify this person in case of emergency", that is defined by ADAMCZYK ET AL. '140 themselves, not by subscriber 170 using MCD 200.

- a (display) mechanism for indicating which other wireless device(s) are in the neighborhood. The invention of ADAMCZYK ET AL. '140 is directed at having alert service 305 notify the other wireless devices, not at notifying MCD 200.

Thus, the present invention, as recited in independent claims 1, 11, 17 and 31, is not anticipated by ADAMCZYK ET AL. '140. Furthermore, the present invention, as recited in independent claims 1, 11, 17 and 31, is not obvious from ADAMCZYK ET AL. '140. The invention of ADAMCZYK ET AL. '140 is intended for use in a situation in which subscriber 170 is incapacitated, or otherwise occupied in dealing with an emergency, or even not at the site of the emergency (the embodiment in which MCD 200 is integral with a vehicle 180), so that as much as possible should be done by alert service 305 and not by subscriber 170. As stated in ADAMCZYK ET AL. '140 column 3 lines 22-26,

By establishing a personal profile, including contact lists, alert system 300 can automatically, upon activation, send an emergency message to a member of the contact lists without further involvement by subscriber 170...

In that sense, ADAMCZYK ET AL. '140 teach away from the spirit of the present invention that is to enable the user of a wireless device to control communication in a self-defined neighborhood.

With independent claims 1, 11, 17 and 31 allowable in their present form it follows that claims 2-16, 19, 20, 32 and 33 that depend therefrom also are allowable.

Although claims 4, 5, 14, 15, 20 and 32 are allowable merely by depending from their respective independent claims, Applicant takes the liberty of pointing out additional reasons why these claims are allowable over the cited prior art.

Claims 4 and 14 recite defining the neighborhood according to minimum received signal strength, not by radius as in ADAMCZYK ET AL. '140.

Claims 5 and 15 recite communicating with the other wireless device or with the other user, by the user of the first/respective wireless device. The whole point of ADAMCZYK ET AL. '140 is to relieve subscriber 170 of having to communicate in that manner.

Claim 20 recites a mechanism, in the wireless communication device, for indicating the geographic location of the other wireless device. In ADAMCZYK ET AL. '140, whose essence is to relieve subscriber 170 of having to find out who is near enough to render assistance, such a mechanism is redundant.

Claim 32 recites a mechanism for setting up a piconet. ADAMCZYK ET AL. '140 use pre-existing Wireless Communication System 100.

Objections to the Claims

Claims 21, 27, 35 and 38 have been objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Therefore, claims 21, 27, 35 and 38 have been rewritten in independent form by including explicitly therein the limitations of claims 17 and 31.

Objections to the Drawings

The Examiner has objected to the drawings for not showing the following features:

Claim 17 element (c): the mechanism for defining a neighborhood of the wireless communication device.

Claim 17 element (d): the mechanism for indicating which of the at least one contact name is associated with a respective other wireless device located within the neighborhood.

Claims 18 and 32: the mechanism for setting up a piconet.

Claims 20 and 34: the mechanism for indicating a geographical location of another wireless device.

Claim 31: the mechanism for defining a target attribute.

The Examiner's objection is respectfully traversed. As discussed above in the context of the rejections under § 112, first paragraph, these features are in fact shown in Figure 1, as transceiver **14**, keypad **24** and display screen **26**. Therefore, there is no need to correct the drawings.


Amendments to the Specification

As requested by the Examiner, all trademarks have been capitalized and have been marked as trademarks. As needed, associated generic terminology has been added.

No new matter has been added.

In view of the above amendments and remarks it is respectfully submitted that independent claims 1, 11, 17 and 31, and hence dependent claims 2-10, 12-16, 18-30 and 32-42 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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